2.6

IBM Tivoli Advanced Audit for DFSMShsm Monitoring Agent Planning and Configuration Guide

IBM

> **Note:**
>
> Before using this information and the product it supports, read the "Notices" topic at the end of this information.

Contents

About this guide

The *IBM Tivoli Advanced Audit for DFSMShsm Monitoring Agent User's Guide* provides specific configuration information for the IBM Tivoli Advanced Audit for DFSMShsm Monitoring Agent.

The common documents at https://www.ibm.com/docs/en/osd provide planning and configuration information that applies to all monitoring agents, including the Advanced Audit for DFSMShsm Monitoring Agent.

Users of this guide need to be familiar with these topics:

- The IBM z/OS® operating system
- Performance monitoring concepts
- TCP/IP and VTAM®

This guide assumes no previous experience with the Advanced Audit for DFSMShsm Monitoring Agent or with IBM Tivoli Monitoring. To learn about this family of products, you can access the documentation at https://www.ibm.com/docs/en/osd.

If you are configuring more than one Advanced Audit for DFSMShsm Monitoring Agent at the same time, you can do the configurations at the same time. Follow the instructions that are provided in the common documents at https://www.ibm.com/docs/en/osd.

Chapter 1. Introduction to the Advanced Audit for DFSMShsm product

IBM Tivoli Advanced Audit for DFSMShsm offers functions for effectively managing a DFSMShsm environment.

IBM Tivoli Advanced Audit for DFSMShsm displays the following types of DFSMShsm information:

- MCDS error summary and detail
- BCDS error summary and detail
- OCDS error summary and detail
- HSMTAPE error summary and detail

Advanced Audit for DFSMShsm has a Java-based interface called the Tivoli Enterprise Portal, which transforms systems data into the business knowledge that you can use to run your enterprise. With IBM Tivoli Advanced Audit for DFSMShsm, you can also set threshold levels and flags as desired to alert you when the systems reach critical points.

The Tivoli Enterprise Portal presents information in a single window comprising a Navigator and a workspace:

- The *Navigator* in the upper left corner shows the hierarchy of your monitored enterprise, from the top level (Enterprise) down to the *nodes* that represent the systems in the enterprise, and then to the *subnodes* that represent groupings of information collected by the monitoring agents. The Navigator lights up with critical, warning, and informational alerts so you can instantly identify problems as they occur. When you click an item in the Navigator, the default workspace for that item is displayed in the Tivoli Enterprise Portal window.
- *Workspaces* can be divided into multiple *views* that contain reports in the form of tables and charts, Web browsers, text boxes, graphic views, and event message logs.

You can use IBM Tivoli Advanced Audit for DFSMShsm features to accomplish many system-management tasks:

- Monitor all systems and resources from a single, integrated browser-based interface that you can customize with filters to display only the data that you want to see.
- Create comprehensive online reports about system conditions.
- Define your own queries, using the attributes provided by a monitoring agent, to monitor conditions and data and customize workspaces.
- Create *situations*, which let you set up monitoring for particular conditions and flag the condition with an alert when detected.
- Trace the causes leading up to an alert.
- Create and send commands to systems in your managed enterprise by means of the Take Action feature.
- Embed information about problem resolution in the product interface using Expert Advice, which can be edited to include knowledge and solutions specific to your environment.

Chapter 2. Planning your IBM Tivoli Advanced Audit for DFSMShsm deployment

This chapter describes the stages of the deployment process, lists the prerequisites for deployment, and provides information to help you plan security for your product deployment.

The topics at https://www.ibm.com/docs/en/osd describe how to plan your deployment.

The following topics describe issues that are unique or that deserve special attention for the Advanced Audit for DFSMShsm Monitoring Agent:

- *Stages of the planning, installation, and configuration process*
- *Prerequisites overview*
- *Planning security*

Stages of the planning, installation, and configuration process

Before you begin your Advanced Audit for DFSMShsm Monitoring Agent deployment, you need to understand the sequence of planning, installation, and configuration events for deployment.

These are the stages of the planning, installation, and configuration process:

1. Install the product package, following the instructions that are provided in the *Program Directory for IBM Tivoli Advanced Audit for DFSMShsm*.

   The *OMEGAMON XE Products: Preinstallation Requirements and Instructions* Technote contains a checklist of requirements and instructions for preinstallation tasks that are common to the OMEGAMON® XE products and the Tivoli Management Services components that are being installed on z/OS. You can find the Technote at https://www.ibm.com/docs/en/osd?topic=packaging-pre-installation-requirements-checklis or search the *Tivoli Support Web* site for `preinstallation requirements`.

2. Read the *Planning, Installing,* and *Configuring* topics at https://www.ibm.com/docs/en/osd, which will prepare you for the installation and configuration of the Tivoli Enterprise Monitoring Server on the platform of your choice, and the Tivoli Enterprise Monitoring Agent on z/OS using the Configuration Manager or Parameter Generator (PARMGEN) Workflow tool.

3. Follow the instructions in the *IBM Tivoli Monitoring Installation and Setup Guide* for additional specific installation instructions for the components of IBM Tivoli Monitoring: https://www.ibm.com/docs/en/tivoli-monitoring/6.3.0.2?topic=guides-installation-guide.

4. Configure the Advanced Audit for DFSMShsm Monitoring Agent by using the Configuration Manager (or optionally PARMGEN). Information about configuration using Configuration Manager or PARMGEN is available at https://www.ibm.com/docs/en/om-shared?topic=above-configuring.

   Parameters that are specific to the Advanced Audit for DFSMShsm Monitoring Agent are described in Chapter 4, "Configuring the Advanced Audit for DFSMShsm Monitoring Agent," on page 7.

5. Support for the Advanced Audit for DFSMShsm Monitoring Agent, in the form of application-specific data, is installed on the distributed infrastructure components from the *IBM Tivoli Advanced Audit for DFSMShsm for z/OS Application Support* CD. (The CD is also used to install application data onto a hub Tivoli Enterprise Monitoring Server on z/OS systems.)

The Advanced Audit for DFSMShsm Monitoring Agent is installed on each z/OS system that you want to monitor. You must install the monitoring agent on the same system on which Advanced Audit for DFSMShsm is running.

Prerequisites overview

Before you begin configuring the Advanced Audit for DFSMShsm Monitoring Agent, verify that your environment meets all of the software and hardware requirements for the components.

Consult the following documents for detailed information about the required software and hardware:

- A complete list of Advanced Audit for DFSMShsm hardware and software prerequisites is located in the *Program Directory for IBM Tivoli Advanced Audit for DFSMShsm*.
- The *IBM Tivoli Monitoring Installation and Setup Guide* describes the prerequisites for the historical reporting components.

Setting up user security when the hob Tivoli Monitoring Server is running on a z/OS system

If your hub Tivoli Enterprise Monitoring Server is running on z/OS, you need to configure RACF® or another supported security product to authenticate your Tivoli Enterprise Portal users. User IDs must also be defined on any Linux®, UNIX®, and Windows™ systems where distributed components are installed.

After you specify a security product and activate security validation by the hub monitoring server during configuration processing, user access to the Tivoli Enterprise Portal is controlled by user ID and password validation at the monitoring server, using the selected security product. More information is available at https://www.ibm.com/docs/en/tivoli-monitoring/6.3.0.

Supported versions of z/OS for Advanced Audit for DFSMShsm

For information about supported version and APARs required, see the ProgramDirectory for Advanced Audit for DFSMShsm for z/OS.

Supported hardware

Most of the hardware that is required to run the Advanced Audit for DFSMShsm Monitoring Agent is determined by operating system considerations. For example, the requirements for the UNIX systems where parts of the IBM Tivoli Management Services are running is determined by the operating system. For most hardware prerequisites, consult the *IBM Tivoli OMEGAMON XE and Tivoli Management Services on z/OS: Common Planning and Configuration Guide* at http://www.ibm.com/support/knowledgecenter/SSAUBV/com.ibm.omegamon_share.doc_6.3/tmsz63_zcommonconfig.pdf.

Planning security

This topic describes the security considerations for the Advanced Audit for DFSMShsm Monitoring Agent and provides instructions for setting up security for Take Action commands.

For more information about user administration, see the *IBM Tivoli Monitoring Administrator's Guide* at https://www.ibm.com/docs/en/tivoli-monitoring/6.3.0.2?topic=2-administrators-guide.

Advanced Audit for DFSMShsm does not provide user-based security with respect to the z/OS information that it displays. All users of the product have access to the same z/OS reports. If you configure forwarding of Take Action commands to NetView on z/OS, then NetView performs user authorization and command execution. Otherwise, all users have the same Take Action command authority.

Chapter 3. Configuring the common z/OS components

Before you can configure the Advanced Audit for DFSMShsm Monitoring Agent component, you must configure the common z/OS components.

Configuration using Configuration Manager or PARMGEN

Configuration of the framework and common components is achieved by using Configuration Manager or the Parameter Generator (PARMGEN) Workflow tool.

Procedure

- See the shared publications for the framework and common component configurations at https://www.ibm.com/docs/en/om-shared?topic=above-configuring.

Setting up a runtime environment

The *IBM Tivoli OMEGAMON XE and Tivoli Management Services on z/OS Common Planning and Configuration Guide* provides instructions for setting up a runtime environment.

Procedure

- The *IBM Tivoli OMEGAMON XE and Tivoli Management Services on z/OS Common Planning and Configuration Guide* is available at https://www.ibm.com/docs/en/om-shared?topic=planning-firstdeployment. Consult the topic *Planning your deployment* for help with deciding what types of runtime environments to set up.

Configuring the Tivoli Enterprise Monitoring Server

Before you begin configuring your monitoring server, you should know about the configuration options that are used by all products.

Procedure

- The Configuring topic, which is available at https://www.ibm.com/docs/en/osd, describes the configuration options that are used by all products.
- To configure the monitoring server on z/OS, see https://www.ibm.com/docs/en/osd. The sample product environment uses a hub monitoring server on z/OS.

Chapter 4. Configuring the Advanced Audit for DFSMShsm Monitoring Agent

For the Advanced Audit for DFSMShsm Monitoring Agent, a high-level qualifier parameter must be specified to locate the AKD data files that are generated by the base product audit function (SAKDLOAD).

Procedure

1. For Configuration Manager, ensure the override embed support is enabled. For more information about override embed members, see https://www.ibm.com/docs/en/osd?topic=manager-using-override-embed-members

2. Specify the proper HLQ that points to the base product library SAKDLOAD using parameter `KRG_AKD_HIGH_LEVEL_QUALIFIER` in your `RTEDEF(KRG$PARM)` member (Configuration Manager: create member, if necessary) or your `WCONFIG  RTE` member for (PARMGEN)

3. Modify member KRG$SST1 in `rtePlibHilev.rteName.EMBEDS` (Configuration Manager) or `WCONFIG  (PARMGEN)` to add /uncomment the DD definition for SAKDLOAD that will then be added to the generated monitoring agent STC JCL:

   ```
   //         DD DISP=SHR,
   //         DSN=<MY.SAKLOAD.HLQ>.SAKDLOAD
   ```

4. Run the **GENERATE** action (Configuration Manager) or the $PARSE step (PARMGEN) to generate the needed RKANPARU members, (includes KRGCONFIG), RKANDATV members, (includes KRGXPERT) and the proper STC definition.

5. Add a DD statement to the base product started task (`AKDJMAIN`): to access the KRGXPERT member of the RKANDATV library

   ```
   //KRGXPERT DD DISP=SHR,
   //DSN=&RHILEV..&SYS..RKANDATV
   ```

Chapter 5. Additional configuration steps

Additional configuration steps include adding application support.

To add application support, follow the instructions that are provided in the topics at https://www.ibm.com/docs/en/om-shared?topic=software-complete-configuration-tivoli-enterprise-monitoring-server. No further information about adding application support is provided in the *IBM Tivoli Advanced Audit for DFSMShsm Monitoring Agent Planning and Configuration Guide*.

Notices

This information was developed for products and services offered in the U.S.A.

This material may be available from IBM in other languages. However, you may be required to own a copy of the product or product version in that language in order to access it.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk, NY 10504-1785
U.S.A.

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

Intellectual Property Licensing
Legal and Intellectual Property Law
IBM Japan Ltd.
19-21, Nihonbashi-Hakozakicho, Chuo-ku
Tokyo 103-8510, Japan

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law: INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation
J64A/G4
555 Bailey Avenue

San Jose, CA 95141-1003
U.S.A.

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this information and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement, or any equivalent agreement between us.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

If you are viewing this information softcopy, the photographs and color illustrations may not appear.

Trademarks

IBM, the IBM logo, and ibm.com® are trademarks or registered marks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the web at "Copyright and trademark information" at: http://www.ibm.com/legal/copytrade.shtml.

Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both.

Microsoft™, Windows, Windows NT™, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Java™ and all Java-based trademarks and logos are trademarks or registered trademarks of Oracle and/or its affiliates.

Terms and conditions for product documentation

Permissions for the use of these publications are granted subject to the following terms and conditions:

Applicability: These terms and conditions are in addition to any terms of use for the IBM website.

Personal use: You may reproduce these publications for your personal, noncommercial use provided that all proprietary notices are preserved. You may not distribute, display or make derivative work of these publications, or any portion thereof, without the express consent of IBM.

Commercial use: You may reproduce, distribute and display these publications solely within your enterprise provided that all proprietary notices are preserved. You may not make derivative works of these publications, or reproduce, distribute or display these publications or any portion thereof outside your enterprise, without the express consent of IBM.

Rights: Except as expressly granted in this permission, no other permissions, licenses or rights are granted, either express or implied, to the publications or any information, data, software or other intellectual property contained therein.

IBM reserves the right to withdraw the permissions granted herein whenever, in its discretion, the use of the publications is detrimental to its interest or, as determined by IBM, the above instructions are not being properly followed.

You may not download, export or re-export this information except in full compliance with all applicable laws and regulations, including all United States export laws and regulations.

IBM MAKES NO GUARANTEE ABOUT THE CONTENT OF THESE PUBLICATIONS. THE PUBLICATIONS ARE PROVIDED "AS-IS" AND WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED,

INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT, AND FITNESS FOR A PARTICULAR PURPOSE.

Privacy policy considerations

IBM Software products, including software as a service solutions, ("Software Offerings") may use cookies or other technologies to collect product usage information, to help improve the end user experience, to tailor interactions with the end user, or for other purposes. In many cases no personally identifiable information is collected by the Software Offerings. Some of our Software Offerings can help enable you to collect personally identifiable information. If this Software Offering uses cookies to collect personally identifiable information, specific information about this offering's use of cookies is set forth below.

This Software Offering does not use cookies or other technologies to collect personally identifiable information.

If the configurations deployed for this Software Offering provide you as customer the ability to collect personally identifiable information from end users via cookies and other technologies, you should seek your own legal advice about any laws applicable to such data collection, including any requirements for notice and consent.

For more information about the use of various technologies, including cookies, for these purposes, see IBM's Privacy Policy at http://www.ibm.com/privacy and IBM's Online Privacy Statement at http://www.ibm.com/privacy/details the section entitled "Cookies, Web Beacons and Other Technologies" and the "IBM Software Products and Software-as-a-Service Privacy Statement" at http://www.ibm.com/software/info/product-privacy.

Index

IBM ®

Product Number: 5698-B12